

1 We claim:

1 1. A method , comprising:

2  
3 sending power to at least one radio frequency (RF) identification ( RFID) transponder ( tag)  
4 by;

5  
6 a) sending power  $P_j$  for a first time  $t_j$  to the tag at a first frequency  $f_j$  chosen from a list of  $N$   
7 frequencies  $f_1, f_2, f_3, \dots, f_N$  ; and then

8  
9 b) sending power  $P_{j+1}$  for a time  $t_{j+1}$  to the tag at a second frequency  $f_{j+1}$  chosen from the list  
10 of  $N$  frequencies, wherein  $t_j$  and  $t_{j+1}$  are substantially different times, and wherein the time  
11 between sending power  $P_j$  and  $P_{j+1}$  is less than a time  $t_0$  in which the tag loses a particular tag  
12 function if no power is sent to the tag.

1 2. The method of claim 1, wherein  $t_{j+1}$  is chosen to be long enough that all tags in operative  
2 communication with the base station at frequency  $f_{j+1}$  have identified themselves.

1 3. The method of claim 1, wherein the sending of power  $P_{j+1}$  is stopped after a time  $t_{j+1}$   
2 when no further tags identify themselves.

1 4. The method of claim 1, wherein  $P_j$  and  $P_{j+1}$  are substantially different powers.

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2 5. The method of claim 4, wherein  $P_{j+1}$  is substantially reduced from  $P_j$  when  $t_j$  is too short  
3 a time for all tags in operative communication with the base station to identified themselves.

1 6. The method of claim 1, wherein  $|t_{j+1} - t_j| > 0.05 (t_j + t_{j+1})$ .

1 7. The method of claim 6, wherein  $|t_{j+1} - t_j| > 0.1 (t_j + t_{j+1})$ .

- 1      8. The method of claim 7, wherein  $|t_{j+1} - t_j| > .3 (t_j + t_{j+1})$ .
- 1      9. The method of claim 1, wherein  $P_j$  is a function of time.
- 1      10. The method of claim 9, wherein  $P_j$  is a monotonically increasing function of time.
- 1      11. The method of claim 10, wherein  $P_j$  is increased when no further tags identify themselves..